Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040); and River Corridor Closure Project (RL-0041)

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B Laydown Yard Demolition

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation and Decommissioning (M. B. Lackey);
- Waste Site Remediation (M. B. Lackey); and
- Reliability Projects (M. M. Belles

This section also includes PBS RL-0041, *Nuclear Facility D&D, River Corridor Closure Project*, until this work scope transitions to the River Corridor Contractor.

NOTE: Unless otherwise noted, all information contained herein is as of the end of August 2004.

Notable Accomplishments

Deactivation and Decommissioning

B Plant Laydown Yard: As of September 21, 2004, all 22 B Plant Construction Laydown Yard structures have been demolished and debris has been shipped to the Environmental Restoration and Disposal Facility.

U Plant: Approval of the 30-day notice to issue the U Plant Ancillary Engineering Evaluation/Cost Analysis for the public comment period was obtained on July 25, 2004. The public comment period began on August 25, 2004, and is scheduled to end on September 25, 2004.

Miscellaneous Structures: As of September 21, 2004, two miscellaneous structures have been demolished and two more are planned to be demolished in September.

River Corridor Closure (RL-41): Received RL direction to incorporate FY 2005 Surveillance and Maintenance activities, 327 Facility Special Case Waste Removal work scope, and demolition of eight structures into the baseline for FY 2005.

Waste Site Remediation

U Plant Regional Closure: Submitted Draft C (working copy) of the 200-UW-1 Proposed Plan to Agencies on September 9, 2004, in preparation of the DOE-RL/Agencies workshop which will be held on September 23, 2004.

BC Cribs and Trenches: Geophysical mapping of the vadose zone contamination in the BC Cribs and Trenches revealed the merging of deep (100-150 feet) contaminants from adjacent waste sites. Substantial variability in contaminant concentration along the length of the trench was also indicated. The goal of this vadose zone plume delineation study is to provide a three-dimensional integration of nitrate and Technecium 99 beneath the waste sites.

200 Area Remedial Investigation/Feasibility Study (RI/FS) Work: FH submitted the 218-E-12B Burial Ground Sampling and Analysis Plan Draft A to RL on August 2, 2004; the document was transmitted to the regulators on August 24, 2004, to partially complete Tri-Party Agreement (TPA) Milestone M-91-40. Submitted the U-Pond and Ditches waste group (200-CW-5, 200-CW-2, 200-CW-4 and 200-SC-1 Operable Units [OU]) Feasibility Study and Proposed Plan for RL review on August 5, 2004. Submitted Revision 0 of the Remedial Investigation (RI) Report for U-Pond and Ditches waste group (200-CW-5, 200-CW-2, 200-CW-4 and 200-SC-1 OUs) to RL on August 20, 2004. Submitted responses to Ecology comments on the 200-CS-1 RI report on August 18, 2004. A second set of comments was received on August 12, 2004, and dispositions are being prepared. As of August 30, 2004, for calendar year (CY) 2004, 8 of 12 TPA milestones have been completed on or ahead of schedule.

Reliability Projects

Awarded contract for procurement of electrical utilities line auger truck on August 24, 2004. This capital equipment purchase replaces the existing truck that is nearly ten years old, is used daily, and has been out of service for major repairs requiring a rental vehicle to support ongoing operations and maintenance activities.

FY 2004 FH Funds versus Forecast ($M)

		FY 2004 Anticipated Funding w/Carryover	FY 2004 Fiscal Year Spend Forecast	Variance
RL-0040	Nuclear Facility D&D, Remainder of Hanford	$ 70.7	$ 63.9	$ 6.8
RL-0041	Nuclear Facility D&D, River Corridor Closure	$ 12.4	$ 10.9	$ 1.5
	Total	**$ 83.1**	**$ 74.8**	**$ 8.3**

Note: Infrastructure Reliability has work scope projected to carry over to FY 2005 ($9.4M).

FY 2004 Schedule/Cost Performance ($M)

		Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance $	Schedule Variance %	Cost Variance $	Cost Variance %	Budget At Completion
RL-0040	Nuclear Facility D&D, Remainder of Hanford	49.7	49.4	57.8	-0.3	-1%	-8.4	-17%	61.1
RL-0041	Nuclear Facility D&D, River Corridor Closure	9.9	10.0	9.7	0.2	2%	0.3	3%	12.1
	Total	**59.6**	**59.4**	**67.5**	**-0.2**	**0%**	**-8.0**	**-14%**	**73.2**

Numbers are rounded to the nearest $M.

Schedule Performance (-$0.2M/0%): The favorable schedule variance for Central Plateau D&D and River Corridor Closure (+$1.6M) is due to completion of FY 2003 carryover activities and performing B Plant Laydown Yard demolition activities ahead of schedule. This is somewhat offset by unfavorable schedule progress for S&M activities (-$.8M) which includes the Plutonium-Uranium Extraction (PUREX) National Emission Standards for Hazardous Air Pollutants compliance (facility modifications) due to programmatic funding constraints forcing work scope to be planned in FY 2004; 231-Z glove box chemical removal due to pending notice of construction approval; 242 B/BL characterization delays due to lack of engineering resources; and efforts to downgrade the B Plant and PUREX stacks to minor status due to delays in obtaining regulatory approval.

The unfavorable schedule variance for Waste Site Cleanup (-$1.3M) is principally due to:

- 200-PW-1: Z-9 drilling and dense, non-aqueous phase liquid (DNAPL) investigation at 200-PW-1 got a late start due to delays in completing the 200-PW-2 remedial investigation. Additional delays in the DNAPL investigation have occurred because significant radiological contamination has been encountered below the ground surface and high levels of carbon tetrachloride have been detected in the drill cuttings. Completion of the drilling has now been delayed until September. The Z-9 Slant Borehole has been deferred into FY 2005 to stay within funding targets.
- 200-MW-1: Deferral of test pit and borehole characterization workscope into FY 2005 in support of the target funding exercises has increased the schedule variance. Recovery of this deferred workscope is not expected until early FY 2005. Discovery of high levels of contamination at the A-4 borehole have delayed this borehole construction work until additional data has been gathered and evaluated to determine a path forward.
- 200-LW-1: Some borehole construction work has been delayed so that planning can begin for the higher priority borehole at 200-PW-2, 216-S-7.

The favorable schedule variance in Reliability Projects is due to progress in completing FY03 carryover work scope (+$2.3M), early completion and/or ahead of schedule on various FY 2004 projects (+$0.4M), offset by delays in initiating new starts due to continuing resolution (-$1.7M), A-8 Substation conceptual design validation (-$0.2M), and L-347, *Radio Frequency Migration* vendor delays (-$0.5M).

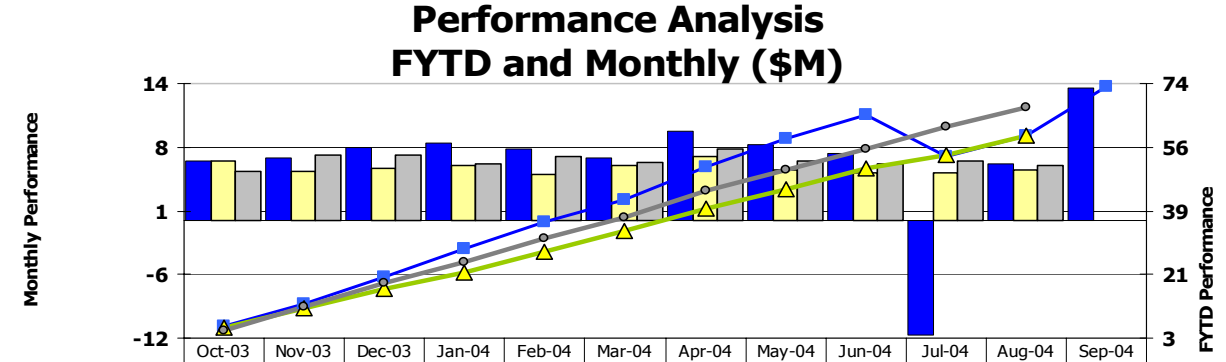
FY 2004 Schedule/Cost Performance, continued

Cost Performance (-$8.0M/-14%): The unfavorable cost variance for Central Plateau D&D (-$8.0M) is primarily due to 233-S demolition activities being more extensive, thus requiring retention of resources (personnel and equipment) for a longer period of time (approximately six months); this is somewhat offset by favorable variances (+$2.5M) due to completion of FY 2003 carryover activities and efficiencies associated with the performance of the B Plant Laydown D&D, U Plant Ancillary D&D Projects, and Surveillance & Maintenance.

The unfavorable cost variance for Waste Site Cleanup (-$2.9M) is due to:

- Drilling at Z-9 for the 200-PW-1 DNAPL investigation has required more labor, analytical support, and investigation derived waste costs than expected due to significant radiological contamination below the ground surface and the detection of high levels of carbon tetrachloride in the drill cuttings. Cost variance distributions from 222-S for underutilized laboratory services has added over $0.4M in unplanned costs to 200-PW-1. Delays with field services have caused additional labor costs during standby activities.
- The 200-PW-2 RI incurred additional analytical costs resulting from more highly contaminated samples than expected. The unexpected contamination has also increased equipment replacement costs for materials contaminated during the 216-A-10 field work, caused increased stand-by time costs, and required additional shipping costs. The RI report cost is greater than planned due to unexpected data compilation work.
- Analytical costs were planned for off-site analysis with a standard 45-day turnaround time. Both the 200-LW-1 and BC Cribs analytical support have been provided by on-site labs with an expedited, quick-turnaround analysis to allow the lab data to be incorporated into the 200-TW-1 Feasibility Study. Some unplanned overtime in anticipation of accelerated work scope also contributed to the BC Cribs overrun.
- Preparation of the 200-CW-5 RI report has been more expensive than expected because not all historical, analytical data was readily available in electronic format. Work to incorporate regulator comments on the Work Plan and greater-than-expected Feasibility Study preparation costs have also contributed to the overrun. Both 200-CW-1 and 200-TW-1 have required more document preparation support due to incorporation of regulator comments/lessons-learned from the 200-CW-1 Feasibility Study document review. Some additional 200-TW-1 costs are associated with incorporating BC Cribs data into the Feasibility Study and the regulator request to incorporate additional data into the RI Report.

The favorable cost variance for Reliability Projects is due to cost efficiencies ($0.4M).



	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04
Monthly BCWS	6.2	6.4	7.4	8.0	7.4	6.4	9.2	7.7	6.9	-11.7	5.8	13.6
Monthly BCWP	6.1	5.1	5.4	5.7	4.8	5.7	6.6	5.2	4.9	4.9	5.2	
Monthly ACWP	5.0	6.6	6.7	5.7	6.6	6.0	7.4	6.1	5.7	6.0	5.6	
FYTD BCWS	6.2	12.5	19.9	27.9	35.3	41.6	50.8	58.6	65.4	53.8	59.6	73.2
FYTD BCWP	6.1	11.2	16.6	21.2	27.0	32.7	39.3	44.4	50.3	54.2	59.4	
FYTD ACWP	5.0	11.7	18.3	24.1	30.6	36.6	44.0	50.1	55.8	61.8	67.5	

Milestones

PBS	MSN	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
RL-0040	TRP-03-224 M-013-00N	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	06/30/04	06/30/04		Completed on schedule
RL-0040	WMG-04-009 M-091-40K	M-91-40K Update 218-E-12B SAP	HQ	*1/15/2005	08/24/04		Completed ahead of schedule
RL-0040	TRP-03-233 M-015-43B	Submit 200-PW-2 OU RI Report Including Past Practice Waste Sites	HQ	06/30/04	06/24/04		Completed ahead of schedule
RL-0040	WMG-04-007 M-091-40L-003	M-91-40L.1.C Submit Quarterly Burial Ground Vent and Subtrate Sample	HQ	08/15/04	08/12/04		Completed ahead of schedule
RL-0040	TRP-03-236 M-016-66	Initiate Interm. Des.& Auth for RA at 618-10&11	HQ	09/30/04			On schedule
RL-0040	TRP-03-242 M-015-40C	Submit 200-CW-5 U Pond/Z Ditches Cooling Water Group FS & Submit	HQ	10/31/04			On schedule
RL-0040	WMG-05-001 M-091-40L-004	M-91-40L.1.D Submit Quarterly Burial Ground Vent and Subtrate Sample	HQ	12/01/04			On schedule
RL-0040	TRP-03-139 M-013-00O	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan	HQ	12/31/04			On schedule
RL-0040	WMG-05-010 M-091-40J	M-91-40J UPDATE 218-W-3A SAP	HQ	03/01/05			On schedule
RL-0040	WMG-05-005 M-091-40L-005	M-91-40L.2.A Submit Quarterly Burial Ground Vent and Subtrate Sample	HQ	03/01/05			On schedule
RL-0040	WMG-05-009 M-091-40I	M-91-40I Update 218-W-4B SAP	HQ	03/01/05			On schedule
RL-0040	WMG-05-006 M-091-40L-006	M-91-40L.2.B Submit Quarterly Burial Ground Vent and Subtrate Sample	HQ	06/01/05			On schedule
RL-0040	WMG-05-007 M-091-40L-007	M-91-40L.2.C Submit Quarterly Burial Ground Vent and Subtrate Sample	HQ	09/01/05			On schedule

* Milestone date - 45 days prior to start of retrieval operation currently scheduled for March 2005